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Department of Genetics
University of Wisconsin
Madison 6, Wisconsin

December 6, 1957

Sir MacFarlane Burnet
Institute of Medical Research
Royal Melbourne Hospital
Parkville, N. 2, Vic., Australia

Dear Mac:

We just received the wooden tray, this arriving not very long after we did ourselves. It would take us a month to unburden ourselves of our impressions of India but I am sure that you had a chance in fact to see much more than we did. Though somewhat traumatic the experience was well worth the effort. We did have many friends there and they did their best to give us an entertaining and a useful visit.

As time passes and I have a chance to get some perspective on our visit in Melbourne we appreciate more and more what this will have meant to us, not only as a passing experience, but for the stimulus it gave in our own work and in suggesting new lines of thought and research activity. I am especially grateful to yourself for your very generous and gracious courtesy in doing everything that had to be done to make it a profitable, convenient and enjoyable visit, and I really mean every word of that.

I have not been back long enough to set the long term patterns of any new research that we may undertake, and in any case, our present facilities would rather discourage undertaking too many new and different lines. Much may depend on the sort of people who I may be able to get to collaborate with here, but for the time being, I do not look to any great activity along the lines of the work I was doing with Gus Nossal at least until the results of these experiments have become firmly fixed. I will do my best to see if it is possible to do at least one confirmatory repetition here of whatever the ultimate results of those experiments are going to be.

Meantime, there is a great deal of tidying up that I still have to do with my equivalent of your 'flu virus program.

I have been spending this week tidying up some old experiments on the inheritance of the contagious factor 'F' immediately after its receipt by an F^- bacterium. This put me back behind my Zeiss— the microscope for which the specifications were sent you-- and I have to say I had if anything underestimated its relative virtues: there's a nearly 10-fold factor of speed, convenience and reliability (viz. in diagnosing drops as having one cell, or debris vs. cells) as compared to the setup we improvised before. If I put undue stress on this, it is because I know that you put more weight on individual creativity and diligence than on fancy apparatus, but in order to effect the kind of ideas you were generating, it will be necessary to take advantage of all technical help that might be available— particularly in a field as competitively active as this one, i.e., the cellular basis of antibody production.

I am looking forward to hearing from Gus on the outcome of his current experiments.

Enclosed are some oddments that may interest you; no further comment may be needed.

My colleagues were as disappointed as I was that we could not have you on our symposium program after all. I hope you will eventually find it possible to attend, if only as an onlooker or discussant— if that does happen please let me know as soon as possible.(Can you let me know your travel schedule, to facilitate further correspondence, or in case we might have a chance to meet on your route?) At any rate, we are hopeful of enlisting Koprowski to speak, from a rather different standpoint, on some aspects of the impact of virus genetic research in medicine. He was already booked as an active discussant. Should that not work out, have you any other suggestions?

With fondest regards to Pat and Lois, to Lady Burnet and to all your staff,

Yours sincerely,

Joshua Lederberg
Professor of Medical Genetics

P.S. Just received: a note from Gus on a provocative experiment. Where there are any "dual" cells needs more looking, I think, but the prevalence of single-antibody-producers is already an important point, as it tends to rule out the accumulation by these cells of antibody from the body fluids. Would it not be important to make a careful histological examination of the cell population? Some people with whom I've discussed this problem have been rather quizzical about whether the lymphocytes actually produce antibody, and if less than 20% of the cells in the exptl. suspensions are not lymphocytes, any doubts should be removed. I hope this is a point you are thinking of undertaking yourself, and I look forward to hearing your judgment on it.